

ABSTRACT

Chimeric GP molecules were constructed which
5 contain portions of both the EBOV and MBGV GP proteins
by swapping the subunits between EBOV and MBGV. The
chimeric molecules were cloned into an alphavirus
replicon which offers the advantage of high protein
expression levels in mammalian cells and is a proven
10 vaccine vector. These chimeric molecules fully
protected guinea pigs from MBGV challenge, and
conversely protected the animals from EBOV challenge.
These results indicate that a protective epitope
resides within the GP2 subunit of the MBGV GP protein
15 and at least partially within the GP2 subunit of the
EBOV GP protein. Additionally these results show that
a construction of a single-component bivalent vaccine
protective in guinea pigs is achievable.

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